

REMARKS

The application has been reviewed in light of the final Office Action dated April 15, 2008. Claims 1-38 were pending, with nonelected and unexamined claims 3-38 having been withdrawn by the Patent Office from examination. By this Amendment, claims 1-9 have been amended to clarify the claimed subject matter thereof and withdrawn claims 10-38 have been canceled, without prejudice or disclaimer. Accordingly, claims 1-9 are now pending, with claim 1 being in independent form.

Claims 1 and 2 were rejected under 35 U.S.C. § 103(a) as purportedly unpatentable over Maki et al. (US 2002/0126193 A1) and Kuwabara et al. (JP2004-99280).

Applicant has carefully considered the Examiner's comments and the cited art, and respectfully submits that independent claim 1 is patentable over the cited art, for at least the following reasons.

The present application relates to various improvements devised by applicant to address certain problems in an image forming apparatus includes a charger that applies positive and negative electric charges alternately to a conveyance belt that conveys a recording medium by attracting the recording medium by an electrostatic force generated by positive and negative electric charges applied thereto. In such image forming apparatuses, the positive and negative electric charges applied to the conveyance belt induce electric charges on the surface of the recording medium, and the charges on the surface of the recording medium in turn causes an electric field that influences ink droplets discharged towards the recording medium to be offset in landing position, thereby adversely affecting quality of images formed by the image forming apparatus.

In the improved image forming apparatus devised by applicant, a control part is provided

to adjust an amount of electric charges induced on a surface of the recording medium by the positive and negative electric charges applied to the conveyance belt. In an aspect of the present application, the control part adjusts the amount of the electric charges on the surface of the recording medium in accordance with a resistance value of the recording medium, to cause the electric charges on the surface of the recording medium to neutralize.

Such approach simply would not have been obvious to one skilled in the art.

Maki, as understood by applicant, proposes a recording-medium conveying device wherein a conveying belt includes an insulating layer formed at one side contacting the recording medium, and a belt charging unit is provided in contact with the insulating layer so as to charge the insulating layer with a positive charge and a negative charge alternately in a moving direction of the conveying belt by applying an AC bias to the conveying belt.

Maki proposes a configuration of the recording-medium conveying device directed to enhance precision of conveyance of the recording medium.

However, as acknowledged in the Office Action, Maki is not concerned with control of an amount of electric charges induced on a surface of the recording medium by the positive and negative electric charges applied to the conveyance belt.

Kuwabara, as understood by Applicant, proposes a paper carrying device including an electrostatic attraction belt 5 applied around a conductive roll 2 on a grounded paper feeding side and a conductive roll 3 on a paper delivery side, and an electrifying roll 10 connected to a direct current high voltage power supply 15 which is brought into pressure connect with the conductive roll 2 of the paper feeding side through the electrostatic attraction belt 5. In the paper carrying device proposed by Kuwabara, a paper sheet 7, after passing over the electrifying roll, is electrostatically attracted to and carried by the conveyance belt.

Kuwabara proposes that the electrical potential difference caused by the direct current high voltage power supply 15 upon the electrifying roll 10 can be adjusted according to various factors (such as temperature, humidity, thickness, surface treatment, etc.) in order to enhance adsorption power, that is, so that the paper is securely carried on the electrostatic attraction belt 5.

Kuwabara is concerned with high humidity causing surface resistance of the paper to decrease such that electrostatic force (and thereby adsorption power) decreases. Therefore, in such circumstances, the device proposed by Kuwabara increases the charge applied by the electrifying roll 10 so that the electrostatic force is maintained at the desired level.

However, Kuwabara is not concerned with the problem that the charges on the surface of the recording medium causes an electric field that influences ink droplets discharged towards the recording medium to be offset in landing position.

Further, one skilled in the art would not be motivated by Kuwabara to adjusts the amount of the electric charges on the surface of the recording medium in accordance with a resistance value of the recording medium, to *cause the electric charges on the surface of the recording medium to neutralize.*

Applicant submits that the cited references, even when considered along with common sense and common knowledge to one skilled in the art, would not render obvious an image forming apparatus wherein a control part adjusts the amount of the electric charges on the surface of the recording medium, which has been conveyed to a recording position where the droplets of the recording liquid are discharged from said recording head toward the recording medium, in accordance with a resistance value of the recording medium, to cause the electric charges on the surface of the recording medium to neutralize.

Accordingly, for at least the above-stated reasons, Applicant respectfully submits that independent claim 1 and claims depending therefrom are patentable over the cited art.

In view of the remarks hereinabove, Applicant submits that the application is now in condition for allowance, and earnestly solicits the allowance of the application.

If a petition for an extension of time is required to make this response timely, this paper should be considered to be such a petition. The Patent Office is hereby authorized to charge any fees that are required in connection with this amendment and to credit any overpayment to our Deposit Account No. 03-3125.

If a telephone interview could advance the prosecution of this application, the Examiner is respectfully requested to call the undersigned attorney.

Respectfully submitted,



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